

MFORESIGHT:

Alliance for Manufacturing Foresight

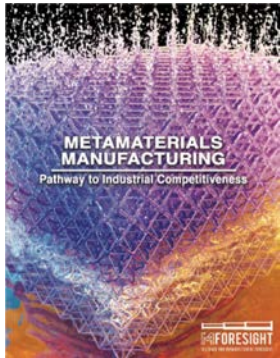
The Nation's Advanced Manufacturing Advisory Consortium

A federally-sponsored consortium of national thought leaders from industry and academia focused on the future of American manufacturing.



www.mforesight.org

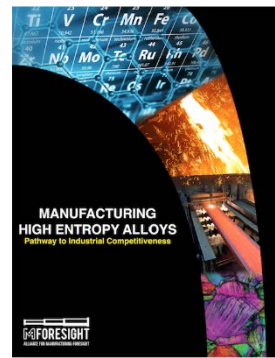
Accelerating Technology & Manufacturing Innovation



Metamaterials
Manufacturing



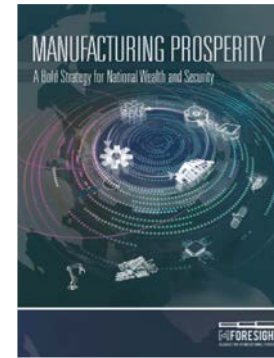
Regenerative
Medicine



Manufacturing
High Entropy Alloys



Manufacturing
101



Manufacturing
Prosperity



Education and
Skills Building



Next Generation
Supply Chains



Cybersecurity for
Manufacturers

Ideas worth scaling



Challenges worth addressing

Basic Research

Translational R&D

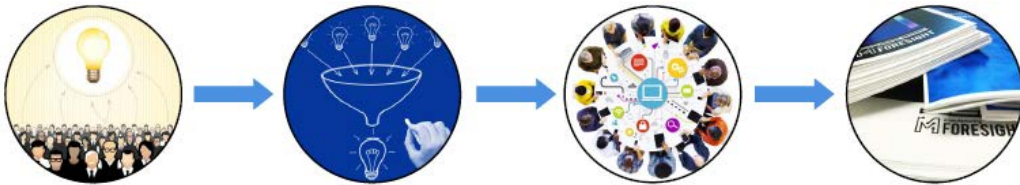
Applied R&D

Full Volume Manufacturing

Stakeholder Engagement and Community Building

4 Phases

- ***Discover***
- ***Prioritize***
- ***Develop***
- ***Disseminate***



M Foresight Leadership Council



Industry



Nonprofits



Academia

Discover

Emerging Technologies & Manufacturing Challenges

Scouting and Surveys

Professional Societies
Trade Associations
Federal Agencies
Federal Programs

Tech Transfer
Universities
Industry
Shows/Events

“Gamechanger” Events Partners



Publish Community Highlights

MANUFACTURING IDEAS TO WATCH



Marketing and Outreach

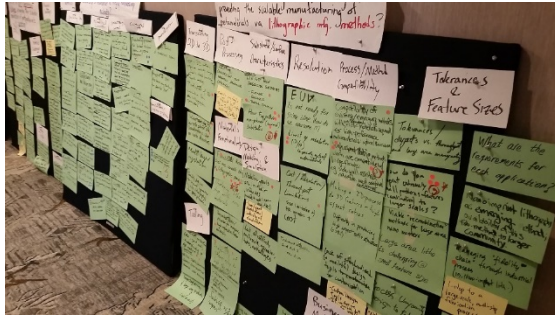
Seeking innovations and
disruptive technologies
MForesight.org

SUBMIT YOUR GAMECHANGER



Develop

Actionable Recommendations



1. R&D Priorities
2. Implementation challenges
3. Related policies

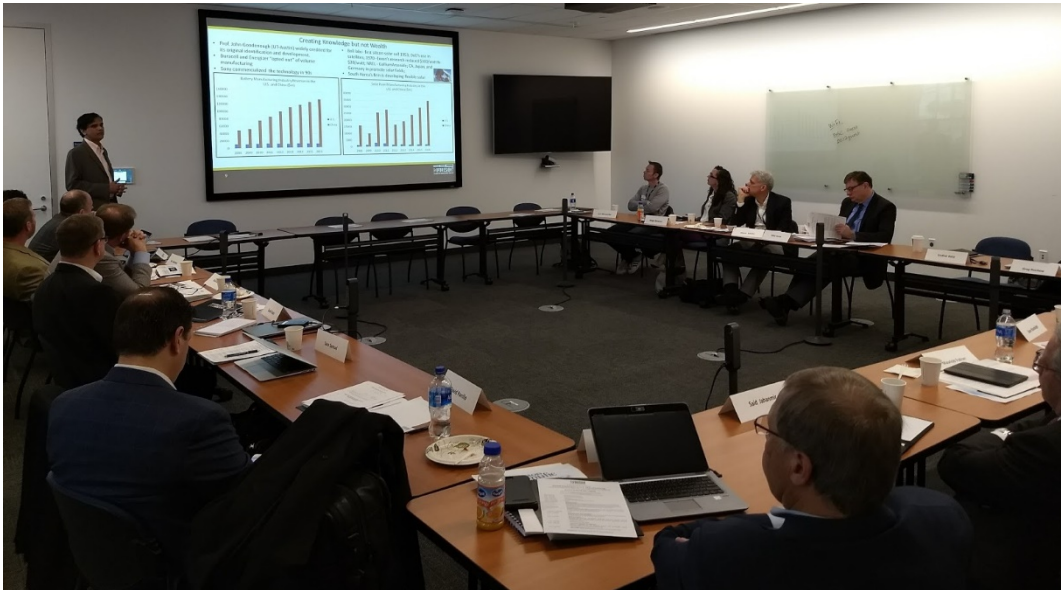


- Deep Dive Workshops:
 - 50% Industry, 25% Academia, 25% Government
 - Community-led Steering Committee
- Industry interviews
- Roundtables
- Internal Research



Challenges

- . Rebuilding America's industrial common
- . Creating wealth from national R&D investments
- . Ensuring financing for "hardware" start-ups and scale-ups



Round Tables and Partners

Boston, MA



Massachusetts
Institute of
Technology



Washington D.C.



NATIONAL ASSOCIATION OF
Manufacturers



Austin, TX,

San Jose, CA



TEXAS
The University of Texas at Austin



NASCENT

Raleigh, NC

Indianapolis, IN



Boston
Scientific



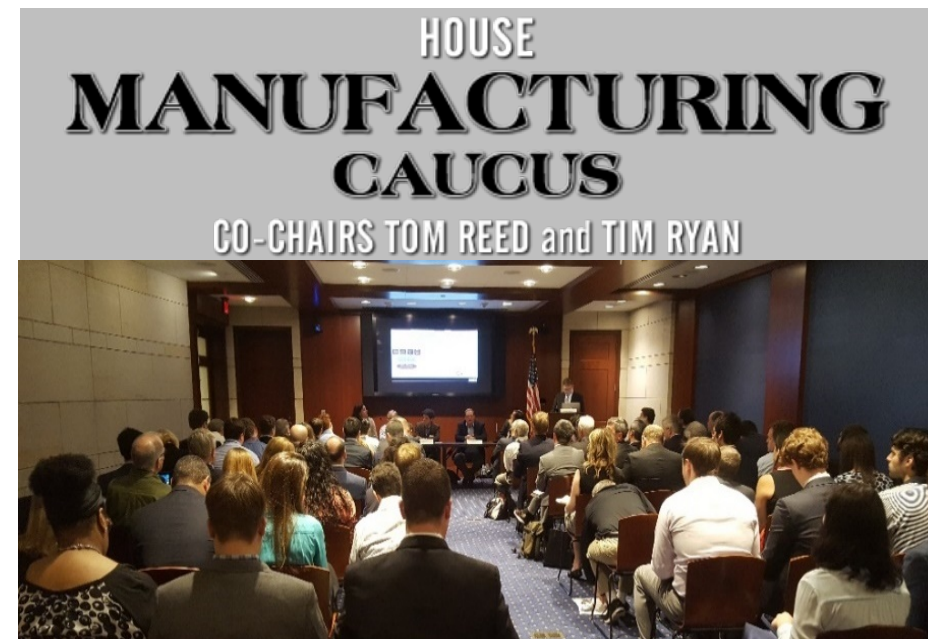
Detroit, MI

Disseminate

Capitol Hill Briefings



M Foresight celebrated the release of the report *Cybersecurity for Manufacturers: Securing the Digitized and Connected Factory* by giving a briefing in Washington, DC on Friday, September 22.



Disseminate

Informing National Action

Reports and Briefings



Dissemination Partners

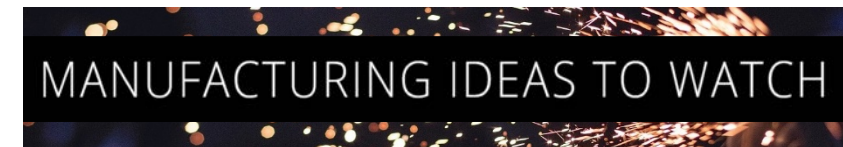


Op-eds

“America is outsourcing innovation and we need to bring it back” – The Hill

“Why America needs a manufacturing strategy” – Guest Opinion - AAM

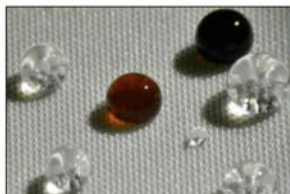
Digital



MForesight.org
MFORESIGHT ON MEDIUM

ENGAGING THE U.S. MANUFACTURING COMMUNITY TO DISCOVER, PRIORITIZE, DEVELOP, AND DISSEMINATE EMERGING TECHNOLOGIES AND MANUFACTURING NEEDS ALIGNED WITH NATIONAL PRIORITIES.

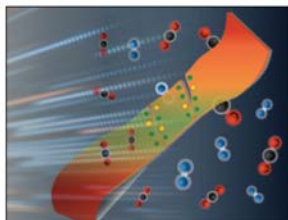
MANUFACTURING IDEAS TO WATCH



CHEMICAL VAPOR DEPOSITION OF WATERPROOF COATINGS ON NATURAL FIBERS



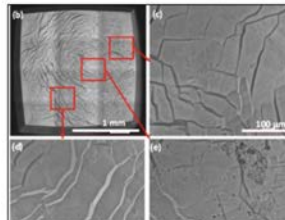
MIND-READING QUALITY CONTROL



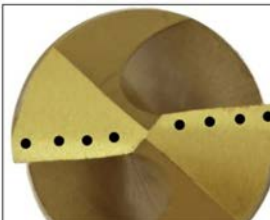
SELF-HEALING POLYMERS MOVING FORWARD



TITANIUM AND CARBON FIBER ULTRASONIC BONDING



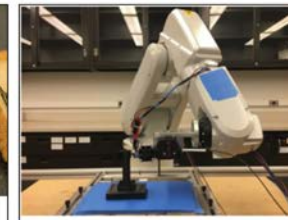
TOWARDS LOW-COST DIAMOND ELECTRONICS



REAL-TIME DRILL BIT HEALTH MONITORING



"WRITING" GRAPHENE ON ORGANIC MATERIALS



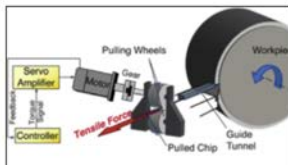
SIX-AXIS ADDITIVE-SUBTRACTIVE MANUFACTURING



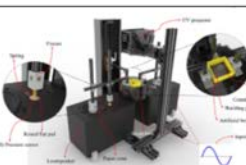
TURNING FOOD PROCESSING WASTE INTO USEFUL BIOGAS



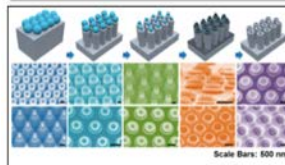
FAST, LOW COST, HIGH DENSITY METAL 3D PRINTING USING JOULE HEATING



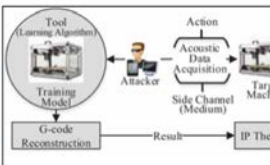
CHIP-PULLING FOR REDUCED CUTTING ENERGY AND TOOL FORCE



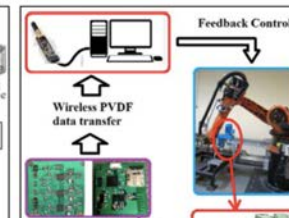
IMPROVING STEREOLITHOGRAPHY SEPARATION USING VIBRATIONS



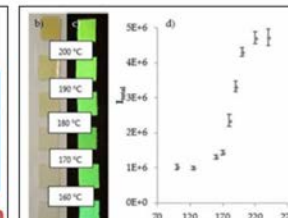
SCALABLE THREE-DIMENSIONAL NANOSTRUCTURE FABRICATION



INTELLECTUAL PROPERTY THEFT USING ACOUSTICS OF ADDITIVE MANUFACTURING



WIRELESS FORCE SENSORS IMPROVE ROBOTIC MILLING ACCURACY



THERMOCHROMIC POLYMERS FOR EARLY DETECTION OF THERMAL DAMAGE IN COMPOSITES